

Appl. No. 09/715,414
Amdt. Dated March 2, 2004
Reply to Office Action of November 3, 2003

Attorney Docket No. 81876.0018
Customer No.: 26021

REMARKS

This application has been carefully reviewed in light of the Office Action dated November 3, 2003. Claims 1-3 and 6-7 remain in this application. Claims 1 and 2 are the independent claims. Claims 1 and 2 have been amended. Claims 4 and 5 have been cancelled without prejudice. Claims 6 and 7 are the new claims. It is believed that no new matter is involved in the amendments or arguments presented herein. Reconsideration and entrance of the amendment in the application are respectfully requested.

Art-Based Rejections

Claims 1, 2 and 4 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,394,474 (Hirai). Claim 3 was rejected under 35 U.S.C. § 103(a) over Hirai and further in view of U.S. Patent 6,311,092 (Yamada). Claim 5 was rejected under 35 U.S.C. § 103(a) over Hirai and further in view of U.S. Patent No. 6,304,714 (Krause). Applicant respectfully traverses the rejections and submits that the claims herein are patentable in light of the clarifying amendments above and the arguments below.

The Hirai Reference

The Hirai reference concerns an echo attaching circuit and an audio circuit using the same. (*See Hirai, abstract; Col. 1, lines 7-12*). The disclosure of Hirai concerns an analog process. (*See Hirai, Fig. 1; Fig 4; Col. 2, lines 26-35; Col. 5, lines 10-15*) Hirai discloses a delay circuit 12 which delays signal by a predetermined time. (*See Hirai, abstract; Col. 3, lines 37-41*).

The Yamada Reference

The ancillary Yamada reference is directed to a voice signal recording apparatus. (*See, Yamada, abstract; Col. 1, lines 7-10, 14-16*). The apparatus discloses in Yamada includes an encoder (14), a decoder (21) and a memory (9).

The Krause Reference

The ancillary Krause reference is directed to an in-home digital video reference. (*See, Krause abstract; Col. 1, lines 9-11.*) Krause discloses digital encoding and decoding with variable bit rates (*See Krause, Col. 4, lines 14-17*).

The Claims are Patentable Over the Cited References

The present application is generally directed to a method and an apparatus for processing digital data of music, for example. As defined by amended independent Claim 1, a method of generating surround-sound data includes the step of providing a memory which has a sufficient storage capacity for storing a number of bits of data required to maintain a surround-sound for a maximum anticipated delay time. An instruction delay time is voluntarily adjustable within a range of anticipated delay time. The number of compression bits is determined based on the instruction delay time and the storage capacity. Digital input/output signal are compressed to a compressed digital signal with the determined number of compression bits, thereby supplying the compressed digital signal to said memory. The compressed digital signal retrieval are outputted from the memory the instruction delay time later as expanded digital signal after expanding. The digital input signal and the expanded digital signal are added to output as the digital output signal.

The applied references fail to disclose or suggest the above features of the present invention as recited in amended independent Claim 1. In particular, the cited references fail to disclose or suggest, "providing a memory which has a sufficient storage capacity for storing a number of bits of data required to maintain a surround-sound for a maximum anticipated delay time," as required by the claims of the present invention.

Moreover, the applied references do not teach or suggest "supplying an instruction delay time voluntarily adjustable within a range of anticipated delay time," as required by the claims of the present invention.

Furthermore, the applied references are not seen to disclose or suggest "determining the number of compression bits based on said instruction delay time and said storage capacity," as required by the claims of the present invention.

The Hirai reference concerns an echo attaching circuit and an audio circuit using the same. (*See Hirai, abstract; Col. 1, lines 7-12*). The disclosure of Hirai teaches an analog process. (*See Hirai, Fig. 1; Fig 4; Col. 2, lines 26-35; Col. 5, lines 10-15*) In contrast, the features required by amended independent claim 1 are only realized by an all digital control. Moreover, Hirai discloses a delay circuit 12 which delays a signal by a predetermined time. (*See Hirai, abstract; Col. 3, lines 37-41*). However, this predetermined time is not voluntarily adjusted. In contrast, the present invention requires that the instruction delay time be voluntarily adjustable. Also, the delay circuit 12 of Hirai processes an analog signal and does not store a number of bits of data required to maintain a surround-sound for a maximum anticipated delay time, as required by amended independent Claim 1. Similarly, Hirai does not determine the number of compression bits based on the instruction delay time and the storage capacity. Accordingly, Hirai does not teach or even suggest the above features of the claims of the present invention.

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The ancillary Yamada and Krause references do not concern echo-attaching methods and circuits and therefore do not disclose or suggest the above features of the present invention.

The Office Action concedes that none of the cited references teach or suggest the above combination of features of the present invention, but nonetheless observes that the above combination "would have been obvious" to one of ordinary skill in the art.

Under MPEP §2143, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." Moreover, "the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure." *Id.* (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)).

As MPEP §2143.01 makes clear, "the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." *Id.* (citing *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)). It is respectfully suggested that none of the cited references suggest the combination of the above references. Moreover, none of the cited references contain a suggestion as to a reasonable expectation of success of any such combination.

Since the cited reference fails to disclose, teach or suggest the above features recited in amended independent Claim 1, these references cannot be said to

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anticipate or render obvious the invention which is the subject matter of that claim. Accordingly, amended independent Claim 1 is believed to be in condition for allowance and such allowance is respectfully requested.

Amended independent Claim 2 is similarly allowable for at least the same reasons as those discussed in connection with amended independent Claim 1.

The remaining claims depend either directly or indirectly from amended independent Claims 1 and 2 and recite additional features of the invention which are neither disclosed nor fairly suggested by the applied references and are therefore also believed to be in condition for allowance.

Conclusion

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6700 to discuss the steps necessary for placing the application in condition for allowance.

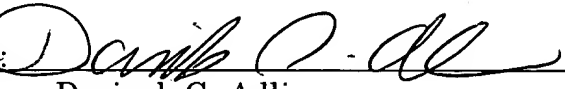
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Respectfully submitted,
HOGAN & HARTSON L.L.P.

Date: March 2, 2004

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